

REMARKS

This Amendment is submitted with the Request for Continued Examination (RCE) filed herewith. With this Amendment, claims 1, 5, 6, 7, 8, 9, 28, 30-36 and 40-42, claims 11 and 29 are canceled and all pending claims 1-10, 12-28 and 30-42 are presented for reconsideration and favorable action.

In the Advisory Action, the Examiner indicated that Appendix A was not received in the previous submission. Another copy of Appendix A is submitted herewith.

Independent claims 1, 28 and 29 state that the moving average is based upon weighted pressure data. This is not shown by the Freeman reference and the rejection may be withdrawn.

Independent claims 1, 28 and 29 state that the historical data comprises statistical data which is calculated as a function of the difference from the moving average determination. This is not shown by the Shanahan et al. reference and the rejection may be withdrawn.

Independent claims 1, 28 and 29 state that the current data comprises statistical data calculated as a function of the difference from the moving average calculation. This is not shown by the Shanahan et al. reference and the rejection should be withdrawn.

As discussed previously, there is no motivation to provide Lowe with Freeman in a manner which would achieve the present invention. Freeman attempts to identify one type of condition in a turbine by comparing a current value to a moving average. Lowe et al. attempt to identify a completely different condition, in a completely different type of system, by comparing a variance of a noise signal to a threshold. There is no motivation whatsoever in these references to use a moving average as an input to a variance determination. For this reason the rejection should be withdrawn. Further, the Examiner states that Lowe and Freeman teach methods for determining "significant

deviation." It is believed that Freeman may be related to identifying a "significant deviation", however, impulse line blockage in a flow meter may actually be a very small determination. For this additional reason the rejection should be withdrawn.

Further, claims 1 and 28 include a training mode and a monitoring mode. Diagnostics are based upon comparing training mode data with current data. The addition of the Shanahan reference to the mix does not yield this configuration. Shanahan et al. simply relates to calibrating a differential pressure fluid flow measuring system. In other words, a test of the devices performed under known conditions and the error is determined. As a simple example, if a device always measures a process variable which is 20% too low, a corrected process variable can be determined by multiplying the measured process variable by 0.2. For this further reason the rejection should be withdrawn.

The dependent claims are allowable due to their dependence upon allowable base claims. However, these dependent claims set forth the invention in terms which are also not shown by the references when the claims are read in their entirety. For example, the dependent claims include the above discussed diagnostics system included in a control system, receiving data from a network, implemented in an application service provider, implemented using temporarily stored data which is transmitted over a network, implemented with real time clock readings, implemented in a remote computer, implemented using a specific moving average calculation, providing a real time condition, diagnosing a condition of a primary flow element or impulse lines by identifying an out of calibration condition, utilizing power spectral density of a difference, implemented in a pressure transmitter coupled to a pitot tube or a primary element and impulse lines, other specific types of primary elements,

including a signal preprocessor algorithm, implementing a neural network, fuzzy logic, wavelets or Fourier transforms, estimating residual life, or identifying a failure or impending failure. Thus, the dependent claims are allowable for additional reason.

In view of the above amendments and remarks, consideration and favorable action are respectfully requested.

The Director is authorized to charge any fee deficiency required by this paper or credit any overpayment to Deposit Account No. 23-1123.

Respectfully submitted,

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